



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.                 | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------------|-------------|----------------------|---------------------|------------------|
| 10/761,224                      | 01/22/2004  | Shunji Takase        | OKI.618             | 2746             |
| 20987                           | 7590        | 11/04/2005           | EXAMINER            |                  |
| VOLENTINE FRANCOS, & WHITT PLLC |             |                      | ERDEM, FAZLI        |                  |
| ONE FREEDOM SQUARE              |             |                      | ART UNIT            |                  |
| 11951 FREEDOM DRIVE SUITE 1260  |             |                      | PAPER NUMBER        |                  |
| RESTON, VA 20190                |             |                      | 2826                |                  |

DATE MAILED: 11/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

4K

|   |                               |                                |  |
|---|-------------------------------|--------------------------------|--|
| <b>Advisory Action</b><br><b>Before the Filing of an Appeal Brief</b> | Application No.<br>10/761,224 | Applicant(s)<br>TAKASE, SHUNJI |  |
|   | Examiner<br>Fazli Erdem       | Art Unit<br>2826               |  |

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 11 October 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
- (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ They raise the issue of new matter (see NOTE below);
- (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_ (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
- The status of the claim(s) is (or will be) as follows:
- Claim(s) allowed: \_\_\_\_\_.
- Claim(s) objected to: 4, 8 and 12.
- Claim(s) rejected: 1-3, 5-7, 9-11 and 13-20.
- Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_
13. ☒ Other: Claim 12 is now indicated as allowable and not rejected.

Continuation of 11. does NOT place the application in condition for allowance because: Regarding Claims 1-3, 5-7 and 9-20, Weber et al. disclose a vertical fuse and method of fabrication where in Fig. 14 a substrate 12 is located all the way bottom. On top of the substrate 12 a dielectric layer 14 is located. A conductive layer 16 is located on dielectric layer 14. Aluminum deposition layer 116 is located on top of the combination of dielectric layers 18 and 26. A vertical conductive/fuse layer extends from the Aluminum layer 16 to the bottom conductive layer 16. Liner/sidewall layers 114 and 104 extend from the aluminum layer 1169 to the bottom conductive layer 16. Weber et al. fail to disclose the required gradual narrowing of the hole and required dielectric insulating/dielectric sidewall/spacers. However, JP 04348517 discloses a contact hole with polycrystalline semiconductor sidewall with hole narrowing towards base of the hole where in Figs. 7 and 12 the required narrowing of the hole is disclosed. Furthermore, Houston discloses a sub-lithographic opening for back contact or back gate where in Fig. 1B the sidewall spacers 108 that gradually narrow hole/opening 106 is oxide/dielectric. .